

What is claimed is:

1. Torch glassware for use with inductively coupled plasma-optical emission spectrometers having an outer tube and a stream of cool inert gas flowing radially within the inner surface thereof such that the cool inert gas creates a cushion between the tube and hot plasma contained within the stream of cool inert gas, said outer tube

5 comprising:

a sidewall, said sidewall having an open end and having a slot passing therethrough, the slot extending longitudinally along said sidewall from the open end thereof and being defined at least in part by a first longitudinal edge and a second longitudinal edge; and

10 wherein said first longitudinal edge is offset radially inwardly from the second longitudinal edge.

2. The torch glassware of Claim 1 wherein the first longitudinal edge is upstream of the second longitudinal edge with respect to the cool inert gas flowing radially within the inner surface of the tube.

3. The torch glassware of Claim 1 wherein the tube includes a fixed center, and wherein a distance between the fixed center and the first longitudinal edge is smaller than a distance between the fixed center and the second longitudinal edge.

4. The torch glassware of Claim 1 wherein a portion of said sidewall is substantially cylindrical in shape, and wherein a portion of said sidewall adjacent to the first edge is deflected inwardly.

5. The torch glassware of Claim 4 wherein the slot is further defined at least in part by an axial edge, and wherein a portion of said sidewall adjacent to the axial edge is deflected inwardly.

6. The torch glassware of Claim 5 wherein the axial edge is curved.

7. Torch glassware for use with inductively coupled plasma-optical emission spectrometers having an outer tube and a stream of cool inert gas flowing radially within the inner surface thereof such that the cool inert gas creates a cushion between the tube and hot plasma contained within the stream of cool inert gas, said outer tube comprising:

a sidewall, said sidewall having an open end and having a slot passing therethrough, the slot extending longitudinally along said sidewall from the open end thereof and being defined at least in part by a first longitudinal edge and a second longitudinal edge;

10 wherein the tube includes a fixed center; and

wherein a distance between the fixed center and the first longitudinal edge is smaller than a distance between the fixed center and the second longitudinal edge

8. The torch glassware of Claim 7 wherein the first longitudinal edge is upstream of the second longitudinal edge with respect to the cool inert gas flowing radially within the inner surface of the tube
9. The torch glassware of Claim 7 wherein said first longitudinal edge is offset radially inwardly from the second longitudinal edge.
10. The torch glassware of Claim 7 wherein a portion of said sidewall is substantially cylindrical in shape, and wherein a portion of said sidewall adjacent to the first edge is deflected inwardly
11. The torch glassware of Claim 10 wherein the slot is further defined at least in part by an axial edge, and wherein a portion of said sidewall adjacent to the axial edge is deflected inwardly.
12. The torch glassware of Claim 11 wherein the axial edge is curved.
13. Torch glassware for use with inductively coupled plasma-optical emission spectrometers having an outer tube and a stream of cool inert gas flowing radially within the inner surface thereof such that the cool inert gas creates a cushion between the tube and hot plasma contained within the stream of cool inert gas, said outer tube
5 comprising:
a sidewall, said sidewall having an open end and having a slot passing therethrough, the slot extending longitudinally along said sidewall from the open end

thereof and being defined at least in part by a first longitudinal edge and a second longitudinal edge; and

10 wherein a portion of said sidewall is substantially cylindrical in shape, and wherein a portion of said sidewall adjacent to the first edge is deflected inwardly.

14. The torch glassware of Claim 13 wherein the first longitudinal edge is upstream of the second longitudinal edge with respect to the cool inert gas flowing radially within the inner surface of the tube.

15. The torch glassware of Claim 13 wherein the tube includes a fixed center, and wherein a distance between the fixed center and the first longitudinal edge is smaller than a distance between the fixed center and the second longitudinal edge.

16. The torch glassware of Claim 13 wherein said first longitudinal edge is offset radially inwardly from the second longitudinal edge.

17. The torch glassware of Claim 13 wherein the slot is further defined at least in part by an axial edge, and wherein a portion of said sidewall adjacent to the axial edge is deflected inwardly.

18. The torch glassware of Claim 17 wherein the axial edge is curved.